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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/878,978	06/19/97	LINDER	S D/97063

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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/878,978	Stephen F. Linder
Examiner	Art Unit
King Y. Poon	2624

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on __Apr 9, 2001__

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-10_ is/are pending in the applica

    4a) Of the above, claim(s) _____ is/are withdrawn from considerã

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-10_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

    a)☐ All b) ☐ Some* c) ☐None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term: non neutral object oriented image data, black object oriented image data, grey object oriented image data, and white objected oriented image data, was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is unclear whether the non neutral object oriented image data, black object oriented image data, grey object oriented image data, and white objected oriented image data are referring to the image data that is created by using object oriented programming, or that the image data would be processed according a particular object.

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. The phase "may be" in claims 1, 4, 6 is considered to be vague and indefinite

because it fails to particularly point out and distinctly claiming whether the image object's

neutral object oriented image data are rendered differently from the object's non neutral object

oriented image data or not.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6.   Claims 6, 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al.

Regarding claim 6: Ueda teaches an object-oriented image processing system, (fig. 1)

comprising: a circuit (program step 1000, fig. 2 of CPU 12 abstract, column 4 line 45-60) for

parsing composite image data into object-oriented graphic/text image object data, (see image

type, column 26 line 1-2, column 5 line 26) wherein object-oriented graphic/text image data

comprises image data pertaining to an image object; (image element, column 26 line 1); a parsing

circuit (program code 3100, fig. 3 of CPU 12) for parsing the object oriented graphic/text image

data into non-neutral object oriented text image data (text, fig. 16a) and neutral object-oriented

graphic image data; (graphic and photograph, 16a); a neutral rendering transform circuit

(program steps fig. 8, of CPU 12, abstract) for transforming a color and color space of the neutral

object-oriented graphic image data; (column 26 line 1-3-15); and an image processing circuit (24,

fig. 1, 5000, fig. 2, and column 8 line 37-40) for processing the transformed neutral image

object-oriented graphic data and the parsed non-neutral image object-oriented text data together,

whereby the image object's neutral object-oriented graphic image data may be rendered

differently (see vivid/color, normal, enhanced, fig. 19, b) from the object's non-neutral

object-oriented text image data.

Regarding claim 10: Ueda teaches that the image object comprises text, graphic, bitmap

or photographic. (see photograph, graphic, text, and bitmap, of column 5 line 25 and 35)

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 1, 3-5, 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et

al. and Matsunawa.

Regarding claims 1, 4: Ueda teaches a system (fig. 1) for processing object-oriented

graphic/text image data, (see photograph, graphic, text, and bitmap, of column 5 line 25 and 35)

wherein the object-oriented graphic/text image data comprises image data pertaining to an image

object, comprising:

a first parser circuit (program step, fig. 3, of CPU 12, abstract) for parsing the

object-oriented graphic/text image data into non-neutral object-oriented text image data (text, fig.

16a) and neutral object-oriented graphic image data; (photographic and graphics image, fig.

16a); whereby the object's neutral object-oriented graphic image data is processed separately

(column 26 line 1-6, an image element is retrieved and processed by CPU 12) and may be

rendered differently (see the images are printed differently according to a printing characteristic,

fig. 19b) from the object's non-neutral object-oriented text image data. Ueda also teaches that the

neutral image object oriented graphic image data are to be processed by a binarization process

(Column 26 line 20-25, column 8 line 8-10) in the neutral rendering transform means, and that

the processed neutral object oriented graphic image data and the non neutral object oriented text

image are further processed. (See the processed image data would be printed (further processed)

to form a composite image, column 8 line 37-40)

Ueda does not teach: a second parser circuit for parsing the neutral object-oriented

graphic image data into black object-oriented image data, grey object-oriented image data, and

white object-oriented image data; and a neutral color processing circuit for processing the black

object-oriented image data, the grey object-oriented image data, and the white object-oriented

image data.

However, Matsunawa, in the same area of converting a multi-gradation image into binary

image (fig. 1b, Matsunawa, column 8 line 5-10, Ueda) teaches to use a parser circuit (11, fig. 18,

column 13 line 20-27) to parse the multi-gradation image into black object-oriented image data,

(see value 16 of fig. 2, fig. 7b) grey object-oriented image data, (value 2-15, fig. 2, fig. 7b) and

white object-oriented image data; (value 0 of fig. 3a, fig. 7b) and a neutral color processing

circuit (14, fig. 18, column 13 line 25-32) for processing the black object-oriented image data,

the grey object-oriented image data, and the white object-oriented image data, (Fig. 7) such that a

binary image is created.

At the time of invention, it would have been obvious to one of ordinary skill in the art to

have modified the image processing system of Ueda by providing the system a second parser

circuit for parsing the neutral object-oriented graphic image data into black object-oriented image

data, grey object-oriented image data, and white object-oriented image data; and a neutral color

processing circuit for processing the black object-oriented image data, the grey object-oriented

image data, and the white object-oriented image data to carry out the binarization process of

Ueda, as taught by Matsunawa. The suggestion of doing so would have benefit the system of

Ueda in performing the conversion of multi-gradation images into binary images (column 8 line

5-10) such that an unpleasant strip domain on the halftone portion of the image would be

eliminated, (column 1 line 43-50, Matsunawa), and at the same time, complex circuitry would

also be avoided. (Column 1 line 40-45, line 65-67, Matsunawa)

Regarding claims 3, 5: Matsunawa teaches that the system as claimed in claim 1, wherein

the neutral processing circuit processes only the black, grey, and white object-oriented image

data according to a selected feature set. (See column 14 line 27-36)

Regarding claim 7: Ueda teaches that the neutral image object oriented graphic image

data are to be further processed by a binarization process (Column 26 line 20-25) in the neutral

rendering transform means.

Ueda does not teach that the neutral rendering transform means comprises: a neutral

parsing means for parsing the neutral image object-oriented graphic data into black object

oriented image data, grey object-oriented image data, and white object-oriented image data; and

neutral image processing means for processing the black image object-oriented data, the grey

object-oriented image data, and the white object-oriented image data.

However, Matsunawa, in the same area of converting a multi-gradation image into binary

image (fig. 1b, Matsunawa, column 8 line 5-10, Ueda) teaches to use a parser circuit (11, fig. 18,

column 13 line 20-27) to parse the multi-gradation image into black object-oriented image data,

(see value 16 of fig. 2, fig. 7b) grey object-oriented image data, (value 2-15, fig. 2, fig. 7b) and

white object-oriented image data; (value 0 of fig. 3a, fig. 7b) and a neutral image processing

circuit (14, fig. 18, column 13 line 25-32) for processing the black object-oriented image data,

the grey object-oriented image data, and the white object-oriented image data, (Fig. 7) such that a

binary image is created.

At the time of invention, it would have been obvious to one of ordinary skill in the art to

have modified the image processing system of Ueda by providing the neutral rendering transform

means of Ueda: a neutral parsing means for parsing the neutral object-oriented graphic image

data into black object-oriented image data, grey object-oriented image data, and white

object-oriented image data; and a neutral image processing circuit for processing the black

object-oriented image data, the grey object-oriented image data, and the white object-oriented

image data, to carry out the binarization process of Ueda, as taught by Matsunawa. The

suggestion of doing so would have benefited the system of Ueda in performing the binarization

process such that an unpleasant strip domain on the halftone portion of the image would be

eliminated, (column 1 line 43-50, Matsunawa), and at the same time, complex circuitry would

also be avoided. (Column 1 line 40-45, line 65-67, Matsunawa)

Regarding claims 8-9: Ueda teaches that the image object comprises text, graphic, bitmap

or photographic. (see photograph, graphic, text, and bitmap, of column 5 line 25 and 35)

9.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. and

Matsunawa as applied to claim 1 above, and further in view of Robinson.

Regarding claim 2: Ueda and Matsunawa have disclosed all of the claim limitations as

recited in claim 1 except a black processing circuit to process the black object oriented image

data; a grey processing circuit to process the grey object oriented image data; and a white

processing circuit to process the white object oriented image data.

Robinson, in the same area of using processors to process data, teaches the use of

different processors to perform different tasks and each processor processes only a specific task.

(See column 8 line 1-25) The suggestion of doing so is to improve on the speed and reduce the

complexity of real time processor system cause by the use of a single processor to process

multiple tasks. (See column 3 line 15-35)

It is for this reason that at the time of invention, it would have been obvious to one of

ordinary skill in the art to have modified Ueda and Matsunawa's image processing system by

having a black processing circuit to process the black object oriented image data; a grey

processing circuit to process the grey object oriented image data; and a white processing circuit

to process the white object oriented image data, as taught by Robinson. The suggestion of doing

so is to improve on the speed and reduce the complexity of real time processor system cause by

the use of a single processor to process multiple tasks. (See column 3 line 15-35, Robinson)

Therefore, it would have been obvious to combine Robinson, Ueda and Matsunawa to obtain the

invention as specify in claim 2.

REMARKS

10.   Applicant's arguments with respect to claims 1-7 have been considered but are moot in

view of the new ground(s) of rejection. Please see office action

Action is Final, Necessitated by Amendment

11.   Applicant's amendment necessitated the new ground of rejection presented in this office

action. Therefore, THIS ACTION IS MADE FINAL. See MPEP 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTHS shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Conclusion

12.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to King Y. Poon whose telephone number is (703) 305-0892 or to Supervisor

Mr. David Moore whose phone number is (703) 308-7452.

DAVID MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

May 7, 2001